

GTHT - ____001____

LDG 15-8

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
P.O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form O-191
Revised 10-1-11
Revised 12-1-11

NO. OF COPIES RECEIVED	
DIVISION	
DATE	
BY	
U.S.G.S.	
CONTRACT	
LAND OFFICE	

APPLICATION FOR PERMIT TO DRILL, DEEPEN,
OR PLUG BACK - GEOTHERMAL RESOURCES WELL

3. Indicate Type of Lease
STATE ☐ PER ☐
3. State Lease No.

1. Type of Well: Drill ☒ Deepen ☐ Plug Back ☐
2. Type of Well: Geothermal Producer ☐ Low Temp Thermal ☐ Temp Observation ☐ Injection/Disposal ☒
3. Name of Operator: Lightning Dock Geothermal HI-01, LLC
4. Address of Operator: Kearns Bldg. 136 S. Main Street, Ste. 600, Salt Lake City, UT 84104
5. Location of Well: UNIT LETTER L LOCATED 345 FEET FROM THE West LINE
AND 2141 FEET FROM THE Southline OF SEC. 8 Twp. 25 South Rge. 19 West Range

7. Lease Agreement Year: None
8. Name of Lease: Fed. NM-34790
9. Well No. LDG 15-8

10. Field and Prod. or Water: Lightning Dock KGRA
11. County: Hidalgo

12. Approx. Date Work will start: 7/1/2015
13. Drilling Contractor: TBD
14. Kind & Status of Prod. Fluid: 4230 GR
15. Formation: Quaternary alluvium Tertiary volcanic
16. Proposed Depth: 1,500 feet
17. Method of Casing: Mud Rotary

PROPOSED CASING AND CEMENT PROGRAM					EST. TOP
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	
12.25"	9.625"	36#	90'	6	GR
8.5"	7"	23#	150'	20	GR
6.125"	5"	11.5#	1,500'	None	1400'

Drill a geothermal injection well on Federal lease NM-34790.
Please see attached location plat Form G-102.
Please see attached drilling handbook prepared by Capuano Engineering Company.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM, IF SHOWN IS DEEPEN OR PLUG BACK, give data on present production zone and proposed new production zone. Give present production program, if any.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.
Agent for Lightning Dock Geothermal HI-01, LLC
Date 6/1/2015

APPROVED BY _____ TITLE _____
CONDITIONS OF APPROVAL, IF ANY: _____ DATE _____

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the outer boundaries of the section.

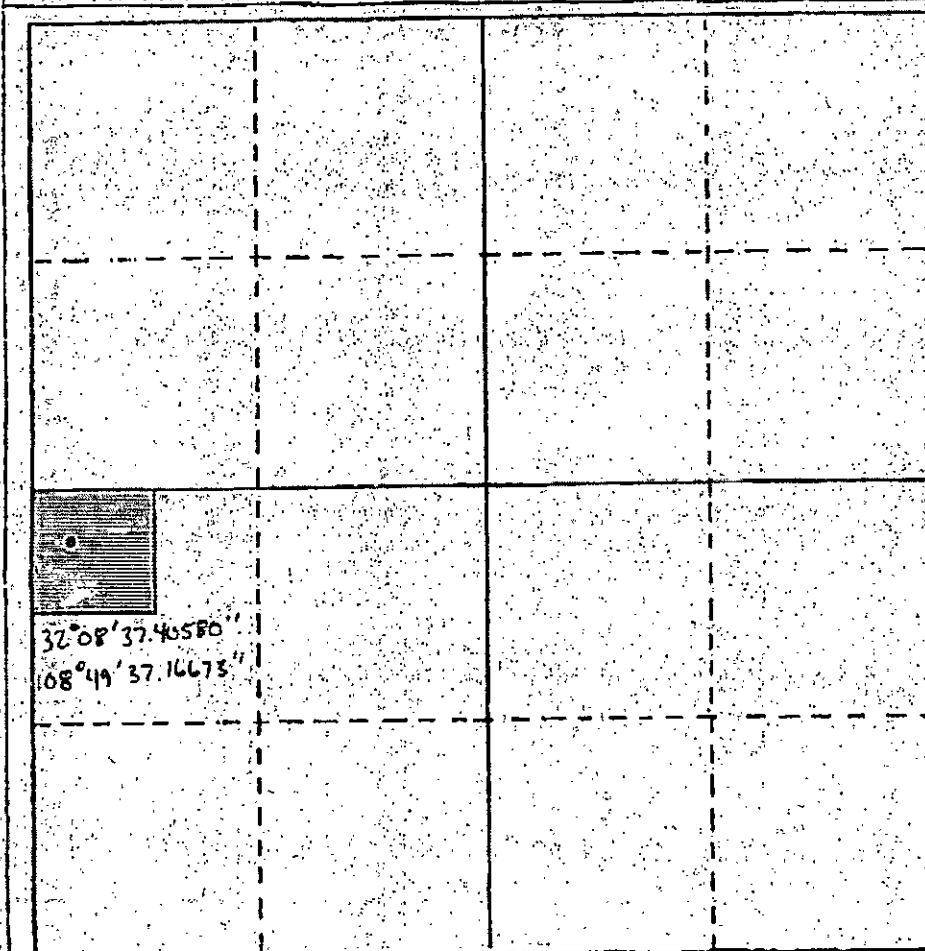
Operator Lightning Dock Geothermal HI-01, LLC			Lease Fed. Geothermal NM-34790		Well No. LDG-15-8
Unit Letter L	Section 8	Township 25 South	Range 19 West	County Hidalgo	
Actual Footage Location of Well: 345 feet from the West line and 2141 feet from the South line					
Ground Level Elev. 4230	Producing Formation NA	Pool NA	Dedicated Acreage: 10 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Division.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name David Janney, PG

Position
Agent for Lightning Dock Geothermal HI-01, LLCCompany
Geo-Science Solutions, LLCDate
May 29, 2015

I hereby certify that the well location shown on this plat was plotted from field notes, actual survey made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

20249
Registered Professional Engineer
and/or Land Surveyor

Certificate No.

OIL CONSERVATION DIVISION

P. O. BOX 2058

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

SANTA FE, NEW MEXICO 87501

Form G-104
Adopted 10-1-74
Revised 10-1-78CERTIFICATE OF COMPLIANCE
AND AUTHORIZATION TO PRODUCE
GEOTHERMAL RESOURCES

OWNER OR OPERATOR

Name: Lightning Dock Geothermal HI-01, LLCAddress: 136 S. Main Street, Ste. 600, Salt Lake City, UT 84101

TYPE OF WELL

Geothermal Producer ☐Low-Temperature Thermal ☐Injection/Disposal ☒

REASON FOR FILING

New Well ☒Recompletion ☐Change in Ownership ☐Designation of Purchaser ☐Other (Please Explain) ☐

DESCRIPTION OF WELL

Lease
Name Not ApplicableWell
No. LDG-15-8Name of
Reservoir Lightning DockKind of Lease
(Fee, Fed. or State) FederalLease
Number NM-34790

LOCATION

Unit
Letter L 2141 feet from the South line and345 feet from the West line ofSection 8 Township 25S Range 19WCounty Hildago

TYPE OF PRODUCT

Dry

Steam and
Water WaterLow Temp.
Thermal Water

DESIGNATION OF PURCHASER OF PRODUCT

Name of
Purchaser Public Service Company of New MexicoAddress of
Purchaser 414 Silver Ave. Suite 4 Albuquerque, NM 87102Product Will
Be Used For Residential and commercial power

CERTIFICATE OF COMPLIANCE

I hereby certify that all rules and regulations concerning geothermal resources wells in the State of New Mexico, as promulgated by the Oil Conservation Division of New Mexico, have been complied with, with respect to the subject well, and that the information given above is true and complete to the best of my knowledge and belief.

Signed David A. Lawrence, PEAgent For Lightning Dock
Position Geothermal HI-01, LLC Date 6/2/2015

Approved _____ Position _____ Date _____

APPLICATION TO PLACE WELL ON INJECTION-GEOTHERMAL RESOURCES AREA

Operator Lightning Dock Geothermal HI-01, LLC		Address 136 S. Main Street, Suite 600 Salt Lake City, UT 84101	
Lease Name Federal NM-34790	Well No. 15-8	Field Lightning Dock	County Hidalgo
Location Unit Letter L , Well Is Located 2141 Feet From The South Line And 345 Feet From The West Line, Section 8 Township 25S Range 19W NMPM.			

CASING AND TUBING DATA

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
Conductor Pipe	9.625"	90'	6 cy	GR	flow to surface
Surface Casing	7"	150'	20	GR	flow to surface
Long String	5" liner	1,500'	None	None	NA
Tubing			Name, Model and Depth of Tubing Packer NA		
Name of Proposed Injection Formation Quaternary alluvium/Tertiary volcanic rocks			Top of Formation 150'		Bottom of Formation 1,500'
Is Injection Through Tubing, Casing, or Annulus? 5" liner		Perforations or Open Hole? slotted liner		Proposed Interval(s) of Injection 150'-1,500'	
Is This a New Well Drilled For Injection? yes		If Answer Is No, For What Purpose was Well Originally Drilled?		Has Well Ever Been Perforated in Any Zone Other Than the Proposed Injection Zone? NA	
List All Such Perforated Intervals and Sacks of Cement used to Seal Off or Squeeze Each Not Applicable					
Depth of Bottom of Deepest Fresh Water Zone in This Area Unknown		Is This Injection for Purpose of Pressure Maintenance or Water Disposal? (See Rules 503 and 502) No, for injection of spent geothermal water			
Anticipated Daily Injection Volume Gallons	Minimum 720,000	Maximum 1,000,000	Open or Closed Type System Open	Is Injection to be by Gravity or Pressure? Gravity	Approx. Pressure (psi) <100
Answer Yes or No Whether the Following Waters are Mineralized to such a Degree as to be Unfit for Domestic, Stock, Irrigation, or Other General Use No			Natural Water in Injection Zone No		Are Water Analyses Attached? Summary on file with OCD
Name and Address of Surface Owner (or Lessee, if State or Federal Land) Rosette, Inc. P.O. Box 1618 Roswell, NM 88202-1618					
List Names and Addresses of all Operators Within One-Half (1/2) Mile of This Injection Well. There are no other geothermal lease owners or operators within one-half mile of the proposed well.					
Have Copies of this Application Been Sent to Each Operator Within One-Half Mile of this Well? Yes ☐ No ☒ not applicable					
Are the Following Items Attached to this Application (See Rule 503)		Plat of Area Yes ☐ No ☒ See G-102	Electrical Log Yes ☐ No ☒	Diagrammatic Sketch of Well Yes ☐ No ☒ See drilling handbook	

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Daniel J. Murray, P.E.
(Signature)

Agent for Lightning Dock Geothermal HI-01, LLC
(Title)

June 1, 2014

(Date)

NOTE: Should waivers from all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Division will hold the application for a period of 30 days from the date of receipt by the Division's Santa Fe office. If at the end of the 30-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing. If the applicant so requests. SEE RULE 503.